DOCUMENT RESUME

ED 443 886 TM 031 531

AUTHOR	Frey, Barbara A.; Overfield, Karen
TITLE	Faculty Development: Assessing Learner Achievement.
PUB DATE	2000-00-00
NOTE	20p.
PUB TYPE	Reports - Descriptive (141) -- Tests/Questionnaires (160)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	*College Faculty; Curriculum Development; Evaluation Methods; *Faculty Development; Higher Education; Program Development; Workshops

ABSTRACT

This study addressed the challenges of developing a faculty professional development workshop on assessment, measurement, and evaluation of achievement in adult learners. The setting for the workshop was a system of postsecondary career colleges throughout the United States. The curriculum development model of D. Kirkpatrick (1994) was used as a tool to guide the decision-making process. Prior to the workshop, a needs assessment including trainers, clients, and managers was conducted to determine the framework of the program. Instructional objectives were established based on the content identified in the needs assessment. Following a review of instructional objectives, the workshop addressed assessment techniques in the cognitive, affective, and psychomotor domains of learning. Both formative and summative evaluations provided feedback on the workshop. An appendix contains the faculty needs assessment questionnaire. (Contains 16 references.) (Author/SLD)

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Faculty Development: Assessing Learner Achievement

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Faculty Development: Assessing Learner Achievement

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Abstract:

This study addressed the challenges of developing a faculty professional development workshop on assessment, measurement, and evaluation of achievement in adult learners. The setting for the workshop was a system of post-secondary career colleges throughout the United States. The curriculum development model of Kirkpatrick (1994) was used as a tool to guide the decision-making process. Prior to the workshop, a needs assessment including trainers, clients, and managers was conducted to determine the framework of the program. Instructional objectives were established based on the content identified in the needs assessment. Following a review of instructional objectives, the workshop addressed assessment techniques in the cognitive, affective, and psychomotor domains of learning. Both formative and summative evaluations provided feedback on the workshop.

Faculty Development: Assessing Learner Achievement

Evaluation of student learning is a crucial, time-consuming part of an educator's job. Grades assigned by educators have an impact on the personal and professional goals of learners, as well as, on their self esteem. The evaluation process too often becomes a means to sort or compare learners, rather than a means to enhance their learning. For many educators, assigning grades is a subjective process. Some instructors consider effort, attitude, and attendance in the grading process. Others focus only on cognitive learning.

Most educators agree that evaluation should promote learning by focusing on learning outcomes and motivating learners to analyze material (Brookfield, 1992; Haladyna, 1999; Kopp, 1987, Wiggins, 1999). In a literature review, Gronland and Linn (1990) found that students, including adult learners, who take courses on a pass/fail basis study less and learn less than when they submit themselves to the normal grading process. Furthermore, Foss and Fisher (1988) found that assessment strategies significantly influence learning behaviors. For example, objective questions about factual material caused learners to limit themselves to memorizing information. Higher level cognitive questions motivated them to use higher level thinking skills.

To be effective and meaningful, the process of evaluation needs to be conducted by educators skilled in its application. In order to address the need for knowledge in assessment and evaluation of learner achievement in a post-secondary career school, a faculty professional development workshop was designed. This article describes the detailed program planning process where the adult educators become adult learners.

Background

The Director of Faculty Development and a faculty member designed this workshop on assessment, measurement, and evaluation of student achievement over a seven-month time period. The setting was a career-focused, post-secondary education system consisting of 19 schools across the United States. Over 1000 faculty members teach in 15 different majors including business, technology, and creative fields. Both associate and bachelor degrees are offered to an enrollment of 14,000 students.

Faculty members in this organization are recruited from industry. The system of schools takes pride in hiring faculty to teach who are successful and recognized in the field. Instructors are also practitioners. They come to the school with a great deal of professional expertise, but limited background in teaching. The area of assessment and evaluation presented a challenge to them. The goal of this workshop was to provide faculty with the foundation of evaluation and assessment knowledge they need to be skilled educators.

Terminology

To add to the challenge of evaluation, educational terminology contains several closely related words which are often confused and used interchangeably. For this project, key terms were defined:

- *Assessment* is a multifaceted, comprehensive analysis of performance (Wiggins, 1999). Assessments are used to analyze student accomplishment, carefully judging the quality and range of achievement.

- *Evaluation* is the systematic process of collecting, analyzing, and interpreting information to make an informed decision (Haladyna, 1999). The Stricklands (1998) wrote "evaluation is the product of assessment" (p.22).
- *Grading* is the process of labeling an evaluation with a letter grade, number, or percentage. Grades are summaries of achievement (Haladyna, 1999).
- *Measurement* involves the assigning of numbers based on rules to describe some attribute Haladyna, 1999).
- *Tests* are instruments or measuring devices (Wiggins, 1999).

Instructional Design

In planning this faculty workshop, the ADDIE Model was used as a systematic framework to guide the development process. Instructional design models (Rothwell & Cookson, 1997, p. 195) have many variations, but most include these five stages:

1. Analysis of learning needs
2. Design of training curriculum
3. Development of training curriculum
4. Implementation or delivery
5. Evaluation

1. Analysis of Learning Needs

A task force was formed of representatives from several schools throughout the system. The task force met on a regular basis for approximately six months as a whole group through audio conference calls. The task force formed subgroups to tackle specific areas. These

subgroups, consisting of faculty, students, and administrators, met face-to-face and reported back on progress during scheduled the audio calls. Most of the work of the task force was completed in the subgroups. The task force agreed on these goals for the program:

- Reduce risk of law suits related to student assessment
- Recognize "excellent" trainers through having them to deliver program
- Create program format design that was transferable and easy to use
- Incorporate program into faculty development programs at the school level
- Provide developmental opportunities for faculty who deliver program

2. Design of Learning Curriculum

In planning for the program, the designers wanted to "walk the talk" – role model program curriculum design and provide a developmental opportunity for faculty through the curriculum design process as well as the workshop. During the design phase, the program planners established these objectives to meet the instructional need:

- Define and explain basic assessment terms as they relate to the classroom environment.
- Identify and determine components of instructional objectives.
- Determine assessment techniques which support instructional objectives.
- Compare and contrast assessment techniques for effectiveness in the cognitive, affective, and psychomotor domains.
- Develop techniques to assess student achievement in each of the three learning domains.

- Critique instructor feedback comments to identify those that support student learning and improvement.
- Modify course grading system.
- Compare and contrast traditional letter, point, and percentage systems of determining student grades.

3. Development of Curriculum

Workshop development represented a time consuming process. First, the program objectives were logically organized into this outline.

I. What are we talking about?
    A. Program overview
    B. Terminology
        1. Measurement
        2. Assessment
        3. Evaluation
            a. Summative
            b. Formative
II. How do we do it?
    A. Instructional Objectives
        1. Learning experience
        2. Observable outcomes
    B. Level of mastery
        1. Norm-referenced
        2. Criterion-referenced
III. How can I assess it?
    A. Knowledge: Cognitive domain
        1. Pre/post-tests
        2. Test construction
        3. Learning contracts
    B. Attitudes: Affective domain
        1. Rating scales
        2. Case studies
        3. Essays

C. Skills: Psychomotor domain
    1. Self/peer assessments
    2. Critiques
    3. Checklists

IV. What about grades?
    A. Providing constructive feedback
    B. Grading systems
        1. Conversion
        2. Weighted points

V. What are the issues?
    A. Grade inflation
    B. Instruction/evaluation improvement

In addition, program development included: selecting participants, determining the best schedule and format, creating a budget, selecting appropriate facilities, selecting appropriate trainers, selecting and preparing audiovisual aids, and coordinating the program. Because of the close relationship among all of these steps, much of the work on them was done simultaneously.

4. Implementation

The program planners agreed on the importance of modeling the principles of adult learning in the workshop planning and facilitation. The program was a highly interactive format making use of individual, partner, and small group experiential activities. The activities were designed to address individual and organizational needs. Pre-program announcements asked faculty members to bring their tests and syllabi to the session. In workshop exercises, faculty applied the concepts immediately to their materials, and received timely feedback.

Since there were 19 schools and the system did not have someone dedicated as a system trainer, a leader's guide was created as a standardized resource for the facilitators. The format was flexible enough for the facilitators to "make it their own" yet structured so they would not have to duplicate effort. The leader's guide contained both an outline of each section of the

module as well as a "scripted" version to help the facilitator prepare to teach the module. Transparencies and participant handouts were created as well as answer keys and explanations. Participant manuals provided the course and content overview, activities, assessment examples, related articles, and a resource list. Disks were provided for the facilitators to modify and duplicate the documentation.

Once the design was completed, a pilot program was conducted. The pilot provided an opportunity to conduct formative evaluation. The pilot, moreover, allowed the program planners to evaluate workshop effectiveness in a clear, timely manner. One of the schools volunteered to conduct the pilot as part of their regular faculty in-service program. Minor modifications were made to the program resulting from feedback from the pilot study.

To build a community of learning, it was decided to "certify" instructors in the system as facilitators. This process served as a form of reward and recognition for faculty. Schools could nominate strong faculty who were interested in the topic of assessment and evaluation. The process consisted of participating in the workshop, team teaching it with a "certified" facilitator, and then teaching it on their own. Through a coaching and mentoring process new trainers gained subject matter expertise. Once "certified" they could teach the module at their own school or perhaps be called upon by other schools to deliver the workshop at their location to their faculty.

5. Evaluation

Kirkpatrick's (1994) four-level evaluation model (reaction, learning, change, and results) is the seminal work for determining the effectiveness of business training programs, and offers educators a valuable tool in program evaluation. Kirkpatrick addresses the training beyond

learning to job application and benefits to the organization. Table 1 defines and describes the indicators for each level of the evaluation model.

Table1: Summary of Kirkpatrick's Four Level Evaluation Model

LEVEL	DEFINITION	INDICATORS
1	Learner reaction	Workshop evaluation form
2	Learning	Workshop assessment techniques Informal evaluation of performance through learning activities and exercises
3	Application	Class Observations Round table discussions Mentoring of new faculty
4	Results	Decrease in legal suits filed

Recommendations

Several problems and concerns surfaced during the program development. Workshop development was challenging because of time restraints on the task force. This was an "added on" responsibility for the members of the task force. The priorities of those on the task force for the project were different than those of the people facilitating the project.

Many concerns arose over logistics of scheduling the workshop. Should schools schedule during the normal work hours, pay people to attend, bring people in during off hours, hire "substitutes" to deliver scheduled classes? Should the workshop be voluntary or mandatory? Should schools train everyone at the same time or phase in?

A role reversal took place. The people who typically did the teaching became the learners. They assumed behaviors they complained about in their students. The faculty members became the "clients" and adult learners. Some wanted to just sit back and "absorb."

Others felt they knew it all and didn't need to participate. Others wanted an arena to display their expertise.

The development of the workshop took more time than originally anticipated. The amount of time required to design and develop this program was grossly under-estimated. Initially, the task force quesstimated three months for development start to finish. Even with two designers, it was over a seven-month project. The time for the delivery of the workshop was also underestimated. Because of the interactive nature of the workshop, the length of the activities and modules were hard to judge. The pilot study conducted was essential to the success of the program. It allowed for revisions in content, activities, and time allocations.

Those trainers who were identified to deliver the program needed to make the program their own. Not everyone wanted to use the same activities, the format of the leader's guide appealed and worked for some and not for others, schools could not and did not want to just "drop" the program in.

Throughout the program planning process, there was a shortage of current literature about assessment and evaluation of adult learner achievement. In some cases, the program planners were forced to use theory from secondary education and adapt it to adult learners. Additional research in both quantitative and qualitative aspects of assessment and evaluation of learners in higher education would be a valuable contribution to the field of adult education. There is also a need for study regarding professional development for educators, and evaluation of professional development programs.

It appears well planned faculty development programs can make a difference. This workshop provided faculty with necessary knowledge and awareness in the evaluation of learner

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achievement. In the future, faculty will be faced with the continued challenges of under-prepared students, technological innovations, and increased accountability. Faculty must be helped to meet these and many more challenges through lifelong learning and professional development. Excellence in higher education is inseparable from the excellence of its faculty.

References

Becker, H.S., Geer, B. & Hughes, E.C. (1995). *Making the grade: The academic side of college life.* New Brunswick, NJ: Transaction Publishers.

Brookfield, S. (1986). *Understanding and facilitating adult learning.* San Francisco: Jossey-Bass.

Brookfield, S. (1992). Giving helpful evaluations to learners. *Adult Learning,3*(8),22-24.

Caffarella, R.S. (1994). *Planning programs for adult learners.* San Francisco, CA: Jossey Bass.

Foss, P. & Fisher, R. (1988). Using tests as learning opportunities. *Journal of Educational Psychology, 80,* 179-183.

Gronlund, N. & Linn, R. (1990). *Measurement and evaluation in teaching.* New York: Macmillan.

Haladyna, T.M. (1999). *A complete guide to student grading.* Boston, MA: Allyn and Bacon.

Kirkpatrick, D.L. (1994). *Evaluating training program.* San Francisco: Berrett-Koehler Publishers.

Kopp, K. *Evaluate the performance of adults.* Module N-6 of Category N (ERIC Document Reproduction Service No. ED 289 969).

Kort, M.S. (1990). No more band-aids: Adult learning and faculty development, *ADE Bulletin,* 95, 21-24.

Maxwell, W.E. & Kazlauskas, E.J. (1992) Which faculty development methods really work in community college? A review of literature. *Community/Junior College Quarterly, 16,* 351-360.

Millis, B.J. (1994). Faculty development in the 1990's: What it is and why we can't wait. *Journal of Counseling & Development, 72,* 454-464.

Moran, J.J. (1997). *Assessing adult learners: A guide for practitioners.* Malabar, FL: Krieger Publishing Co.

Rothwell, W.J. & Cookson, P.S. (1997). *Beyond instruction: Comprehensive program planning for business and education.* San Francisco, CA: Jossey-Bass.

Strickland, K. & Strickland, J. (1998). *Reflections on assessment: Its purposes, methods & effects on learning.* Portsmouth, NH: Boynton/Cook Publishers.

Wiggins, G.P. (1993). *Assessing student performance: exploring the purpose and limits of testing.* San Francisco, CA: Jossey Bass.

Appendix A

Faculty Needs Assessment Questionnaire

Assessment, Measurement and Evaluation

Please answer the following questions on techniques to measure or assess student achievement. We will use your feedback to guide us in future faculty development initiatives. We are interested in how you are evaluating your students and establishing grading criteria, as well as your interest in developing additional techniques.

1. Please indicate with a check mark which methods you are currently using and those you would like to consider or learn more about.

GRADING METHODS	CURRENTLY USING	MORE INFO	N/A
A. Pretests			
B. Learning Contract			
C. Quizzes			
D. Tests (unit, midterm, final)			
E. Papers (research, term, essay)			
F. Assignments			
G. Projects			
H. Journal			
I. Case Studies			
J. Checklists / Rating Scales			
K. Self-Report Techniques			
L. Student Presentation / Demonstration			
M. Peer Appraisals			
N. Other:_____			

2. Indicate with a check mark which of the following criteria you include in determining students' grades.

CRITERIA	YES	NO	N/A
A. Effort			
B. Class Participation			
C. Attendance			
D. Attitude			
E. Observations			
F. Spelling			
G. Grammar			
H. Handwriting			
I. Other:_____			

3. If you give paper and pencil tests, please indicate with a check mark which types of questions you currently use or those you would like to consider or learn more about.

TEST STYLE	CURRENTLY USING	MORE INFO	N/A
A. Multiple Choice			
B. Matching			
C. Essay			
D. Case Study			
E. Completion			
F. Rating Scale/Checklist			
G. True/False			
H. Matching			

4. If you teach a studio course, please indicate with a check mark those techniques you use to assess student achievement. Also check those techniques on which you would like more information for future consideration.

TECHNIQUE	CURRENTLY USING	MORE INFO	N/A
A. Critiques - Individual or Group			
B. Meet Objective / Solve Problem			
C. Use of Type			
D. Color Scheme			
E. Rendering Techniques			
F. Overall Presentation			
G. Neatness / Craftsmanship			
H. Construction Skills			
I. Thumbnail Sketches			
J. Finished Comprehensives			

5. Please answer the following questions based upon the grading procedures of your classes.

QUESTION	YES	NO	N/A
A. Do your students know ahead of time what is expected to earn each grade?			
B. Is the grading criteria of each course stated on your course syllabus?			
C. Are grades students earn in your class an accurate indication of what they have learned?			
D. Does every student have an equal opportunity to earn each grade?			
E. Do you maintain appropriate documentation and accurate records to verify grades?			
F. Are course objectives the basis for rating student			

achievement?			
G. Is the competence of each student based on pre-set standards?			
H. Are evaluation changes or modifications made based on a thorough analysis of grading procedures and/or policies?			
I. Is the number of projects or tasks completed during a quarter considered in your grading criteria?			
J. Are your grading policies designed to reduce competition among students in the class?			
K. Are grades of a class determined on a curve?			
L. Has "grade inflation" occurred in the grading process of your course?			
M. Do you determine grades by converting raw scores to a percentage?			
N. Do you provide feedback in the form of comments on student tests, projects, or assignments?			
O. Are all student projects graded on the same set of characteristics?			
P. Does your grading policy include "throwing out" the lowest test, quiz, project, or other score?			
Q. Do you give extra credit assignments?			
R. Do you arrange test questions by difficulty, type, content, and/or directions?			
S. Do you review individual scored tests as to the number of students who missed each question?			
T. Do you use computer graded score sheets?			
U. Do you use a publisher's test bank which accompanies a course textbook?			
V. Do you maintain a test item bank?			

Please comment on these questions:

A. Do you grade a finished product, idea, or procedures? Please explain.

B. Does the amount of time spent on a product/project influence the grade?

C. On what criteria do you evaluate student projects? How did you determine this criteria?

D. On what areas of student measurement or grading would you like more information?

E. Are you confident of your current grading procedures?